REGIONAL ANDROLOGY SERVICE USER MANUAL

SOLELY FOR FERTILITY CLINICIANS AND PATIENTS

POST VASECTOMY SAMPLES ARE NOT ACCEPTED

DOCUMENT HISTORY	
Original Author	**D. LUTTON**
Date of Original Document	**10/10/11**

Electronic Location	\\GOVERNANCE\ISO\MANAGEMENTSYSTEM\ PATIENTINFORMATION\ANDROLOGY\ACTIVE

Please ensure that this is the most up to date version of the Regional Andrology Service User Manual

Introduction

The Regional Andrology Service (RAS) is located on the first floor of Royal Maternity Hospital. It forms part of the Regional Fertility Centre (RFC) which is within the Belfast Health & Social Care Trust.
The RAS gained Clinical Pathology Accreditation (CPA) in September 2013.
The Andrology Laboratory has its own separate entrance which can be found to the left of the main stairwell on the first floor of the hospital.

Directions

Come into Royal Maternity Hospital through the Main Hospital. Walk past reception and turn left. Continue until the lifts and stairs are reached on the left. Take either the lift or stairs to the 1st floor. On exiting on the 1st floor, turn left. The Andrology Laboratory entrance will be found 25 meters along the corridor on the right hand side.

The full postal address is:

Regional Andrology Service
Regional Fertility Centre
Royal Jubilee Maternity Service
Grosvenor Road
Belfast Health & Social Care Trust
Grosvenor Road
Belfast
BT12 6BA

Telephone: RAS 028 90633986
RFC 028 90635888

Clinical Service

The bulk of the clinical referrals to the RAS are in the areas of Gynecology and Fertility with the occasional referral from General Practitioners. Fertility Clinics are held within the Regional Fertility Centre on the ground floor of Royal Maternity Hospital, at the Grove Well Being Centre and at other Trust's throughout the Provence. Gynaecology Clinics are held at throughout the Provence.

RAS Staff

Medical Director:	Dr Peter McFaul
Scientific Director / Laboratory Director:	Dr Deborah Lutton
Andrologists:	Dr Joan McKinney Ms Anne Havern Miss Emma McLean
Laboratory Technician:	Ms Carly Huddleston

The above staff may be contacted by telephoning the Regional Fertility Centre on 028 9063 5888.

The semen analysis test

A comprehensive semen analysis is carried out on samples examining a number of factors which all contribute towards a man's ability to conceive.

Sperm concentration This is measured in millions of sperm per milliliter of semen. This is done using a microscope and a special counting chamber.

Sperm motility Sperm are graded on their ability to swim. The fast forward swimming sperm are generally the most fertile.

Sperm morphology The proportion of sperm in the sample that have a normal appearance is assessed.

Antisperm antibodies These are found in some patients and can reduce sperm motility and cause the sperm to stick together. They are common in men who have had vasectomy reversal operations.

Trial wash Where appropriate, a trial wash is performed in which the sample is prepared and washed as it would be on the day of treatment. This helps the senior embryologist decide on the most suitable type of fertility treatment should this prove necessary.

Laboratory Service.

The laboratory is open from 8.00 am to 4.30 pm Monday to Friday.

Request forms

Andrology request forms may be obtained from the Administrative Staff at the Regional Fertility Centre by telephoning 02890 635888 and choosing option 4.

Requests will only be accepted from registered medical practitioners, patients cannot 'self refer'. It is essential that request forms are fully completed. Health and Care (H&C) numbers must be provided. Incomplete forms will be returned to the referrer. Full clinical and identifying information is essential to ensure the highest quality service.

Once the completed request form is received by the RFC administration staff, an appointment will be booked for the patient and a letter given or sent to the patient. Specific directions regarding the production of the sample will be included in the letter to the patient.

Sample production and what a patient needs to know in preparation for the test

Semen samples should be produced in the discreet facilities available within the Andrology suite. This is because samples must be maintained at body temperature

and analysed within one hour of production. A member of Andrology staff will guide patients to this facility. Adult literature is provided within this facility for those who wish to avail of it.

In exceptional circumstances only, samples may be produced off site but only by prior arrangement with the Andrology or Embryology staff. In this situation, instructions will be provided individually to the patient together with an appropriate container.

A number of factors can affect the performance of the test and therefore it is important that the following are adhered to:

Patients should:

- Abstain from ejaculation for 2-3 days before their appointment but not more than 7.
- Empty their bladder before producing the semen sample.
- Produce the sample by masturbation only.
- Attempt to collect ALL of the sample into the container provided and advise a member of the Andrology staff if any of the sample is not collected.
- Use only the container provided by the Regional Andrology Service to collect their sample.
- Ensure that the container is clearly labelled with their name, address and date of birth.
- Tell the laboratory staff if they have been ill or had a viral infection eg flu, in the last three months, or if they have been on medication.

Patients should NOT:

- Use a condom to collect the sample as condoms can adversely affect sperm.
- Use lubricants when producing the semen sample as lubricants can have a detrimental effect on sperm.
- Expose the sample to extremes of temperature. If transporting the semen sample to the laboratory, it should be carried inside their jacket or trouser pocket to keep it close to body temperature.
- Use containers other than those provided by the Andrology laboratory as they cannot be accepted and a new appointment will need to be booked.

If patients are unable to produce a semen sample by masturbation, then a special condom (a 'Male Factor Pack') is available by prior arrangement with the Andrology Laboratory.

What if I need to change my appointment?

If you are unable to attend the appointment you have been given then please contact the Regional Fertility Centre via Tel: 02890635888 (option 4) or Fax: 02890 634435 to arrange a convenient date. Please bear in mind that the laboratory is a regional centre and deals with many samples each day so if you

need to change your appointment then an alternative may not be available before 3-6 weeks.

Car parking

There are visitor's car parks providing on-site parking for a small charge. Please note that the car park can often be extremely busy and patients should leave additional time for parking. If the patient is more than 30 minutes late for their appointment it will need to be rebooked.

Results

Semen analysis results form will be posted to the referring doctor or the named individual (e.g. Secretary) and address that is detailed on the referral form.

Patients who are attending the RFC will receive their semen analysis result at their next review appointment with their RFC doctor.

Unfortunately the Andrology and Embryology staff are unable to provide results over the phone or by e-mail or fax due to issues of confidentiality and data protection.

Please avoid telephoning wherever possible. Non-urgent telephone calls create a significant workload and cause unnecessary delay in processing samples.

Interpretative comments and reference ranges are incorporated into the results reports. The department is happy to assist in the interpretation of test results if required. For advice and interpretation please contact a Senior Embryologist on either 028 90633986 or 028 90632237.

Repeat tests

Sometimes it is necessary to repeat a test. This may be because:

- part of the sample was lost by the patient at the time of production.
- one or more of the parameters examined was borderline or below the 'normal range'.
- the patient did not abstain from sexual activity before the test.
- the patient had abstained for too long in advance of the test.
- the patient had been ill in advance of the test.
- the patient was unable to ejaculate on the day of the test.
- other reasons.

A repeat test is then necessary to help staff to make an accurate decision on the most suitable type of fertility treatment should this prove necessary. The repeat test will either be arranged directly by the Andrologist, or a letter will be sent to the referrer stating that a re-referral is required. Directions will be provided on how soon the repeat test should be performed. Following an illness, the advice may be to wait for a defined period of time to allow for semen production to fully recover.

Turnaround Time

The turnaround time from receipt of referral to posting out of Semen Analysis report is 40 working days.

Patients who have been referred by outside centres will have their results issued to their referring doctor. This will be approximately 2 weeks after their semen analysis. The turnaround times are closely monitored.

Patients who have been referred for a semen analysis by a Regional Fertility Centre doctor will receive their semen analysis results at their next review.

Our aim is to provide the highest quality of service with prompt delivery of accurate results (backed up by specialist medical and scientific expertise).

Comments on how the service could be improved are always welcomed.

Uncertainty in Diagnostic Semen Analysis

Uncertainty in relation to laboratory testing simply means the existence of doubt or a level of error associated with a particular measurement. A degree of biological uncertainty exists when only a single semen sample is tested. Procedural uncertainty also exists from errors associated with specimen collection, to sample testing (method bias, sampling error and operator error) through to final reporting.

Within the Regional Andrology Service, the following steps are taken to minimise uncertainty:

- Semen analysis methodologies are based on WHO (fifth edition) recommendations
- There is robust confirmation of the patient's identity and details on the specimen container(s), request and report forms are matched.
- Strict 'specimen acceptance criteria' are applied with only complete samples accepted in appropriate specimen containers.
- The period of abstinence is defined (2-7 days).
- It is requested that all men produce 'on site' to control the variation in sample collection and transportation.
- The interval between collection and analysis is defined and semen analysis is commenced within an appropriate timeframe.
- There is traceability and toxicity testing of materials in significant contact with sperm.
- All laboratory equipment is appropriate and regularly serviced and maintained.
- Samples are well-mixed prior to analysis.
- Measurement of motility is carried out at 37°C.
- Sampling error is minimised by assessing large numbers of sperm wherever possible.
- Staff are trained and their competency is assessed at intervals.
- Robust Internal and External Quality Control measures are in place.

- A verification of report step is in place to ensure that the transcription from any hand written laboratory form is free from error.
- Results are checked and authorised by senior staff.

Lower reference limits

(5th centiles and their 95% confidence intervals) for semen characteristics
(*For professional use only)

Parameter	Lower reference limit
Semen volume (ml)	1.5 (1.4-1.7)
Total sperm number (10^6 per ejaculate)	39 (33-46)
Sperm concentration (10^6 per ml)	15 (12-16)
Total motility (progressive + non-progressive, %)	40 (38-42)
Progressive motility (PR, %)	32 (31-34)
Vitality (live spermatozoa, %)	58 (55-63)
Sperm morphology (normal forms, %)	4 (3.0-4.0)
pH	≥7.2
MAR test (motile spermatozoa with bound beads, %)	<50

(Adapted from WHO Manual, 5th Edition)

The reference distributions shown provide a description of the semen characteristics of recent fathers, whose partner became pregnant within 12 months of stopping use of contraception.

Semen characteristics are highly variable, both within and among men, and are not the sole determinants of a couple's fertility; the ranges therefore provide only a guide to a man's fertility status.

Men whose semen characteristics fall below the lower limits given here are not necessarily infertile; their semen characteristics are below the reference range for recent fathers—as are, by definition, those of 5% of the fertile men who provided data used in the calculation of the reference range.

A man's semen characteristics need to be interpreted in conjunction with clinical information.

The Regional Andrology Service is CPA accredited, ISO 9001:2008 certified and takes part in an external quality assurance scheme (UKNEQAS).